BARRANCA DIAMOND

Highland Precision
HP18 & HP24 Slab Saw

Owner's Manual and Operating Instructions

Revision 113	07.2013
Manual Part No. 164269	

Caution: Read all safety and operating instructions before using this equipment. This manual **MUST** accompany the equipment at all times.

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TABLE OF CONTENTS

Thank you for selecting the Barranca Diamond Highland Precision Slab Saw. We are certain that you will be pleased with your purchase. Barranca Diamond takes pride in producing top quality products for hobbyists and commercial lapidary users throughout the world. This product is manufactured in the United States.

This owner's manual contains information necessary to operate and maintain your Highland Precision Slab Saw safely and correctly. Operated correctly, your Highland Precision Slab Saw should provide you with years of service. Please take the time to familiarize yourself with the Highland Precision Slab Saw by reading and reviewing this manual.

If you should have questions concerning your Highland Precision Slab Saw, please call Barranca Diamond at (310) 523-5867 or Toll Free (800) 630-7682.

TABLE OF CONTENTS

SAFETY	
Safety Precautions	3-5
California Proposition 65 Warning	6
Electrical Requirements	7-8
PRODUCT SPECIFICATIONS	9-10
SETUP	
Unpacking & Assembly	11
Contents	11
Transport	11
OPERATION AND ADJUSTMENT	
Pre-start Inspection	12
Startup	12-13
Adjustment & Operation	14-16
MAINTENANCE AND TROUBLESHOOTING	
Maintenance Following Use	17
General Maintenance	18
Monthly Maintenance	18-19
Troubleshooting	20
EXPLODED VIEW & PARTS LIST	
HP18 Explored View & Parts List	22-25
HP18 Vise Assembly & Parts List	26-27
HP24 Explored View & Parts List	28-31
HP24 Vise Assembly & Parts List	32-33
WARRANTY, RETURN, & CUSTOMER SERVICE	
Warranty	34-35
Return & Customer Service	36

SAFETY PRECAUTIONS
Read and follow all safety, operating and maintenance instructions. Failure to read and follow these instructions could result in injury or death to you or others. Failure to read and follow these instructions could also result in damage and/or reduced equipment life. In order to prevent injury, the following safety precautions should be followed at all times!

READ OWNER'S MANUAL BEFORE USE
Before using this equipment, ensure that the person operating this machine has read and understands all of the instructions in the manual. Precaution is the best insurance against accidents. Read and understand all safety precautions, messages, warnings and hazard symbols. You are responsible for your own safety.

ALWAYS USE SAFETY GLASSES
Safety glasses should always be worn when working around power tools. In addition, a face, dust mask or respirator should be worn if a cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses and may not prevent eye injury - they are NOT safety glasses.

USE PROPER APPAREL
Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may be caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Hand protection (plastic gloves) and a shop bib are recommended during sawing to prevent stains to clothing. Avoid prolonged exposure of skin to the sawing lubricant and wash skin immediately after contact. Do not touch the work material until the motor is off and the machine has come to a complete stop.

ALWAYS USE HEARING PROTECTION
To reduce the possibility of hearing loss, always use hearing protection when operating power equipment.

KEEP GUARDS IN PLACE
In order to prevent injury, never operate the saw without the guards in place!

REMOVE ADJUSTING KEYS AND WRENCHES
Form a habit of checking to see that keys and adjusting wrenches are removed from the power tool before
it is turned on.

ELECTRICAL SHOCK
Never touch electrical wires or motor components while the motor is running. Exposed, frayed or worn electrical wiring and plugs can be sources of electrical shock that could cause severe injury or burns.

DISCONNECT TOOLS
Power tools should always be disconnected before servicing or when changing accessories, such as blades, bits, cutters and the like.

REDUCE THE RISK OF UNINTENTIONAL STARTS
Make sure the **ON/OFF** switch is in the **OFF** position before plugging in a power tool.

ROTATING OR MOVING PARTS
Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate the engine with covers, shrouds or guards removed.

MAINTAIN TOOLS WITH CARE
Keep tools clean for the best and safest performance. Always follow maintenance instructions for lubricating and when changing accessories.

KEEP WORK AREA CLEAN
Cluttered work areas and benches invite accidents.

DO NOT USE IN DANGEROUS OR HAZARDOUS ENVIRONMENTS
Do not operate equipment in dangerous or hazardous environments. Do not use power tools in damp or wet locations nor expose them to rain. Always keep the work area well lighted. Always work in a well ventilated area.

KEEP CHILDREN AWAY
All visitors and children should be kept a safe distance from the work area. Keep power cords disconnected when tool is not in use.

MAKE THE WORKSHOP KID-PROOF
Make the workshops kid-proof by using padlocks, master switches and by disconnecting all power cords.

USE THE RIGHT TOOL
Do not force a tool or an attachment to do a job that it was not designed to do.

SECURE WORK
Clamps or a vise should be used to hold work whenever practical. Keeping your hands free to operate a power tool is safer.

DO NOT FORCE THE TOOL
A power tool will do a better job and operate more safely at the feed rate for which it was designed.

USE THE RIGHT TOOL TO SERVICE THE SAW
Do not force a tool or an attachment when servicing or operating the Highland Precision Slab Saw. Use the correct tools for service or adjustments.

DO NOT OVERREACH
Keep proper footing and balance at all times by not overreaching.

DO NOT OPERATE A TOOL WHEN TIRED
When tired, take a break and relax.

DIRECTION OF FEED
Always feed work into a blade or cutter in the direction shown in this manual. All blades, grinding wheels or polishing belts should always be installed such that rotation is in the direction of the arrow imprinted on the blade, wheel or belt.

ONLY OPERATE AT THE PROPER SPEED
Severe personal injury and damage to the motor or equipment can result if operated at speeds above maximum.

NEVER LEAVE A TOOL RUNNING UNATTENDED – TURN POWER OFF
Do not leave a tool until it comes to a complete stop. Always turn the tool off, and disconnect the power cord to its source, when leaving the work area or when work is finished. Do not leave extension cords attached to the power cord or power receptacle (wall outlet) when leaving the work area.

CHECK FOR DAMAGED OR WORN PARTS
Before using a power tool, check for damaged parts. A guard or any other part that is damaged should be carefully checked to determine if it would operate properly and perform its intended function. Always check moving parts for proper alignment or binding. Check for broken parts and mountings and all other conditions that may affect the operation of the power tool. A guard, or any damaged part, should be properly repaired or replaced.

USE RECOMMENDED ACCESSORIES AND PARTS
Consult the owner's manual for recommended accessories and parts. Using improper parts and accessories may increase the risk of personal and/or bystander injury.

USE THE PROPER EXTENSION CORD
If using an extension cord, make sure it is in good condition first. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage that will result in a loss of power and overheating. The table on page 8 shows the correct AWG (American Wire Gauge) size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

USE THE PROPER POWER SOURCE
This tool is only to be used with a 120 volt 60 HZ power source. Ensure power source is at least 15 amps and 110 to 120 volts. Low voltage current can adversely effect electric motor performance and overall life.

USE THE RECOMMENDED COOLING AND LUBRICATING FLUIDS
Never operate a tool dry that requires coolant or lubricant. This can lead to shortened tool life, tool damage and personal injury.

MAINTAIN TOOLS WITH CARE
Keep the diamond blade sharp, the sawing lubricant clean and reservoir filled to the correct level for the best and safest performance. Always follow the maintenance instructions for sharpening the blade, lubricating and servicing the Highland Precision Slab Saw.

SILICA DUST WARNING

Grinding/cutting/drilling of masonry, concrete, metal and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When cutting such materials, always follow respiratory precautions.

Use appropriate NIOSH-approved respiratory protection where dust hazard may occur. Paper masks or surgical masks without a NIOSH approval number are not recommended because they do little to protect the worker. For more information about respirator programs, including what respirators have received NIOSH approval as safe and effective, please visit the NIOSH website at:
http://www.cdc.gov/niosh/topics/respirators

Observe OSHA regulations for respirator use (29 C.F.R.§1910.134 and §1503.1).
Visit *http://www.osha.gov* for more information.

CALIFORNIA PROPOSITION 65 MESSAGE

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead-based paints
- Crystalline silica from bricks, cement and other masonry products
- Arsenic and chromium, from chemically treated lumber

For further information, consult the following sources:
http://www.osha.gov/dsg/topics/silicacrystalline/index.html
http://www.cdc.gov/niosh/docs/96-112/
http://oehha.ca.gov/prop65/law/P65law72003.html
http://www.dir.ca.gov/Title8/sub4.html

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles. Where use of a dust extraction device is possible, it should be used. To achieve a high level of dust collection, use an industrial vacuum cleaner.

WARNING

Sawing and drilling generate dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment, always employ dust controls and protection suitable to the material being sawed or drilled; See OSHA (29 CFR Part 1910.1200).

ELECTRICAL REQUIREMENTS AND GROUNDING INSTRUCTIONS

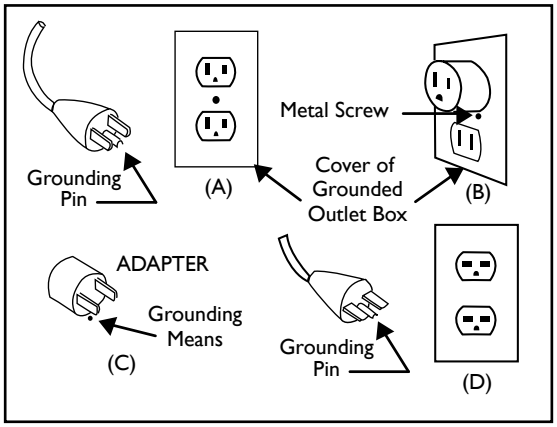
In order to prevent electrical shock and injury, the following electrical safety precautions and symbols should be followed at all times!

WARNING

In case of a malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electric shock. This tool is equipped with an electric cord which has an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- **DO NOT** modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- Improper connections of the equipment-grounding conductor can result in a risk of electric shock. The equipment-grounding conductor is the insulated conductor that has an outer surface that is green, with or without yellow stripes. If repair or replacement of the electric cord or plug is necessary, **DO NOT** connect the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
- Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks like the one shown in Sketch A. The tool has a grounding plug that looks like the plug illustrated in Sketch A. A temporary adapter, which looks like the adapter illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, plug, and the like, extending from the adapter, must be connected to a permanent ground, such as a properly grounded outlet box.



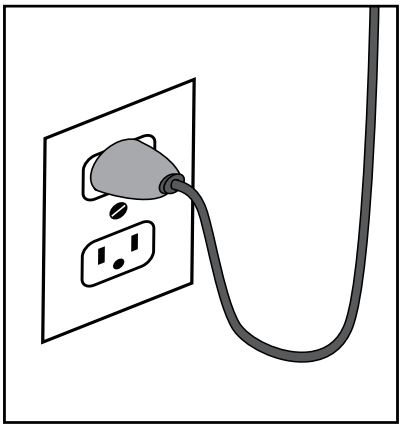
Circuit and Adapter Information

NOTE: Use of a temporary adapter is not permitted in Canada.

NOTE: If permanently connected this tool should be connected to a grounded metal permanent wiring system; or to a system having an equipment - grounding conductor.

ELECTRICAL REQUIREMENTS AND GROUNDING INSTRUCTIONS

To avoid the possibility of the appliance plug or receptacle getting wet, position the saw to one side of a wallmounted receptacle. This will prevent water from dripping onto the receptacle or plug. A “drip loop," shown in picture below, should be arranged by the user to properly position the power cord relative to the power source.



The “drip loop" is that part of the cord below the level of the receptacle, or the connector, if an extension cord is used. This method of positioning the cord prevents the travel of water along the power cord and coming in contact with the receptacle. If the plug or receptacle gets wet, DO NOT unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the tool. Then unplug and examine for presence of water in the receptacle.

Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking “Acceptable for use with outdoor appliances; store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cords before using and replace if damaged. Do not abuse extension cords and do not yank on any cord to disconnect. Keep cords away from heat and sharp edges. Always disconnect the extension cord from the receptacle before disconnecting the product form the extension cord.

To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch the plug with wet hands.

Use of undersized extension cords result in low voltage to the motor that can result in motor burnout and premature failure. Barranca Diamond warns that equipment returned to us showing signs of being run in a low voltage condition, through the use of undersized extension cords, will be repaired or replaced totally at the customer's expense. There will be no warranty claim.

To choose the proper extension cord:

- Locate the length of extension cord needed in the table below.
- Once the proper length is found, move down the column to obtain the correct AWG size required for that length of extension cord.

EXTENSION CORD LENGTH							
Nameplate Amperes	**115V**	25'	50'	75'	100'	150'	200'
	250V	50'	100'	150'	200'	300'	400'
0 - 5		16	16	16	14	12	12
5.1 - 8		16	16	14	12	10	•
8.1 - 12		14	14	12	10	•	•
12.1 - 15		12	12	10	10	•	•
15.1 - 20		10	10	10	•	•	•

Model#	HP18	HP18	HP24
Motor	Baldor	Baldor	Baldor
Horsepower	1.5 Hp	1.5 Hp	1.5 Hp
Voltage	120V / 60 Hz	120V / 60 Hz	120V / 60 Hz
Amperage	8	8	8
Motor RPM	1725	1725	1725
Blade RPM	700	700	500
Arbor Size	1”	1”	1”
Blade capacity	16”- 20”	16”- 20”	20”- 24”
Depth of Cut	7.5" (w/ 18" Blade)	8" (w/ 20" Blade)	10” (w/ 24" Blade)
Vise Opening	8”	8”	17”
Blade Included	18" 301 or 303S	20" 301 or 303S	24” 301 or 303S
Saw L x W x H	51” x 37” x 49”	51” x 37” x 49”	65” x 37” x 48”
Dry Weight	580 lbs.	580 lbs.	720 lbs.
Part Number	8302018	8302020	8302024

MOTOR
Single Phase, Continuous Duty commercial grade motor with automatic thermal overload protection. Manual reset button on HP18 and HP24 Baldor motors. Export motor 230 volts 50Hz can be ordered with either saw.

FEED MECHANISM
Stainless steel screw rod with silicon bronze threaded clutch block engagement system. Silicon bronze spur to hardened steel worm gear to belt pulley drive.

LUBRICATING SYSTEM
Blade splash system using petroleum or mineral oil based lubricant. Water should NEVER be used as a lubricant in any of the Highland Precision series saws as it will adversely affect cutting performance, blade life, power feed, iron/steel components, and create bearing problems with the saw.

LUBRICANT REFERENCE
HP18: 9-1/4 gallons with 18” blade, 4-1/4 gallons with 20” blade.
HP24: 19 gallons with 24” blade
Refer to page 12

CARRIAGE & VISE MATERIAL
Cast Iron.

CARRIAGE RAILS
Steel rod.

SHAFT BEARINGS
Sealed flange mount ball bearings with zerk fittings for grease lubrication.

CARRIAGE FEED ENGAGE/DISENGAGEMENT
Lever operated clutch system using silicon bronze shoe with block (adjustable set screws).

INDEXING OR ROCK CUT WIDTH CONTROL
Crank handle operated stainless steel screw system.

TANK & HOOD COVER CONSTRUCTION
11 gauge steel box-construction 12 gauge hood with acrylic plastic viewing window.

TANK LEGS
11 gauge steel construction with locking casters on HP18 and HP24 saws.

OIL SLUDGE DRAIN
2” drain cap on HP18 and HP24 saws. Drain placement is on bottom of saw tank.

ON/OFF AUTOMATIC POWER CONTROL
HP18 and HP24 saws have adjustable chain for automatic shut-off control of power on/off switch.

DEPTH OF CUT
24” blade: 10 inches,
20” blade: 8 inches
18” blade: 7.5 inches

MATERIAL TYPES
Barranca Diamond Highland Precision Slab Saws can cut a variety of material types including lapidary rock, natural and artificial glass, and gemstone minerals.

NOTE: Highland Precision Slab Saws are not designed to cut wood, ice, synthetics, graphite carbon, plastics, or ferrous metal materials.

UNPACKING & ASSEMBLY
Your Highland Precision Slab Saw has been shipped from the factory thoroughly inspected and tested. The blade has been factory installed and arbor nut securely tightened. No assembly is required. Do not over-tighten the arbor nut prior to use.

Remove the saw from the pallet by unbolting legs from crate pallet and place it on a flat surface using a forklift. Install casters on legs – one at a time - on HP18 and HP24 saws prior to operation.

CONTENTS

In the wood crate, you will find one (1) Barranca Diamond Highland Precision Slab Saw, one (1) 303 segmented diamond blade, one (1) owner's manual, one (1) warranty card, and 4 leg casters (HP18 & HP24).

TRANSPORT

WARNING Highland Precision Slab Saws weigh between 550 (HP18) and 750 (HP24) pounds dry. Do not attempt to move a saw that is not mounted on casters without a forklift or floor jack.

Place the hood in the DOWN position and latched when transporting.

Be sure power cord is disconnected.

RECOMMENDED CUTTING OILS

Never run a diamond blade dry as this can immediately damage your blade. Use one of the oils/coolants recommended below. Coolant should be kept clean and below 100° F. Sludge should be removed periodically and replaced with fresh coolant so that your cuts will be clean and your blades will not be damaged.

Shell Diala Ax

Non-hazmat replacement oil for electrical transformer cooling. Excellent lubricating properties for blades and saw parts. Flushes sludge from rock easily, degreases easily, and sludge settles in saw tank well. In Southern California, Shell Diala Ax can be purchased from Dion and Sons, Inc (www.dionandsons.com).

Chevron Texaco Bright-Cut

A chlorine-free cutting oil with reduced sulfur and fat content. Light in color and low in odor.

Hyvolt II

Electrical transformer cooling oil. A highly refined petroleum product, available from some non-Shell oil distributors, typically only in 55 gallon drums. Same properties and performance as Shell Amber Neutral 100.

Chevron Superla #5

Food grade mineral oil. Non-hazardous lubricating oil for bakeries, breweries and food processing machinery. Good lubricating properties, degreases and settles sludge well. Can go rancid over time (1 year or less).

AVATEC 80

Food grade mineral oil, excellent for slab sawing in all our slab saws.

Texaco ALMAG

Pure petroleum based machining cutting oil. Good for slab sawing but very strong odor. Often the cheapest priced oil available but odor is tough to eliminate.

Roc Cut

Roc Cut from Diamond Pacific is a new synthetic water soluble cutting additive with rust inhibitors. Mix 30 to 1 (water to Roc Cut).

Roc-Oil

Roc-Oil from Diamond Pacific is an oil coolant for heavy duty cutting. Provides excellent blade protection and will not cause rust to your blade or saw.

Under NO circumstances should any of the following fluids be used in any of our lapidary saws:

Automotive Antifreeze Coolant

Ethylene glycol based automotive antifreeze and its vapors are considered hazardous and toxic. Propylene glycol based antifreeze is nontoxic but has practically no lubricating properties; it functions as a coolant only and its use will lead to rapid blade wear and dulling.

Automotive Transmission Fluid

Does not have adequate lubricating proprieties for our saws; vapors are considered hazardous and toxic.

Water

A good coolant but has no lubricating properties and causes rust and degradation of exposed iron and steel parts. Causes rapid blade dulling and premature wear. Use of water voids the warranty on all Barranca Diamond saws.

CNC Machining Fluids

Water soluble synthetic coolants (i.e. Valenite or Cimtool) are often mixed in a 20:1 blend with water. Fluid vapors are considered hazardous. These fluids do not have adequate lubricating or rust inhibiting properties for the cast iron and steel parts in our slab and trim saws.

Diesel, Heating Oil and Kerosene

Very flammable with a low flash point. At least 3 of our commercial cutting customers in Arizona and Pacific Northwest have burned down their shops using these fluids. Can be very tough to degrease the residue and aroma out of the cut slabs. These fluids are cheap, but very hazardous to use. Diesel is a benzene compound which is carcinogenic. All these fluids can cause severe skin rashes and other ailments.

PRE-START INSPECTION
The pre-start inspection should be performed before beginning any job.

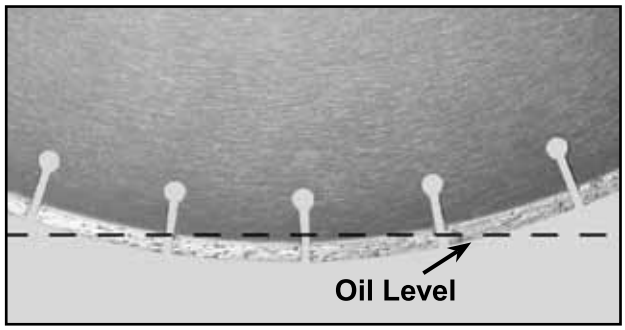
1. Check Oil Level
Oil should always cover at least 1/4" to 3/8" of the bottom of the blade (Kerf should be completely covered). Do not overfill the reservoir tank!

2. Check Blade

CAUTION Check blade signs for core or segment cracks, uneven segment wear, pounding out of round arbor hole, undercutting, segment loss, dishing or loss of tension. If the diamond blade shows signs of any of these problems the blade must be replaced before starting work. A damaged blade will not cut correctly and could cause physical injury.

STARTUP

Saw Lubricant
The saw tank reservoir should be filled with oil to a point 1/4" to 3/8" of the bottom of the blade. This ensures adequate lubrication for the blade's diamond notched segments and allows for splashing of the oil onto the rock carriage, vise, rails and screw thread for lubrication and rock mud flushing into the tank. Never place more than 3/4 inch of oil over the bottom of the blade as this overfilling will result in more friction and work for the blade and motor to overcome the excess oil causing motor and belt overheating. Periodically check the oil tank level after each day of use to ensure an adequate level of lubricating oil in the tank. Expect loss of cutting oil over time due to misting, absorption into the rock material and heat evaporation.



Power Switch (HP18 & HP24)
The motor requires no special preparation or adjustment prior to use of the slab saw. The on/off power control toggle switch is located on the front of the saw. Pull the toggle switch away from the saw to start the electric motor. Push the toggle switch toward the saw to stop the electric motor.

Automatic Shutoff (HP18 & HP24)
Once a rock specimen has been securely vised inside of the saw, the operator can adjust the automatic shut-off control switch by moving the link chain to the desired position where the rock and vise are anticipated to complete the desired cut. By moving the vise forward with the rock in place, the operator can see where the chain slack needs to be adjusted to stop the unit automatically. Movement of the vice will tension the chain to a point where it will pull the **ON**/**OFF** switch to the **OFF** position and shut-off the power feed and blade shaft motor automatically.

WARNING
TO START: PULL KNOB MOTOR
TO STOP: DEPRESS KNOB MOTOR
WARNING
USE OF GFCI (GROUND FAULT CIRCUIT INTERRUPTER SWITCH) IS REQUIRED AT ALL TIMES.
DO NOT REMOVE DISK GUARD

HP18 & HP24 power switch

New Blade Break-In Procedure
Be sure to wipe off any and all carbide or abrasive grit particles from the cross and main feed screw rod and rails. It is recommended, upon initial use of the Highland Precision slab saws, to cut material that is abrasive yet soft such as carbide brick or cinder block to remove the factory paint and open the blade's diamond segment for optimal cutting performance. Use of a sharpening stone such as aluminum oxide or carborundum is acceptable only if the sharpening brick is placed securely in the vise.

HP18 & HP24
Automatic shut-off chain & adjustment to carriage hook

Never operate the saw with the hood up, or hold a sharpening stone to the blade by hand. Use of the vise is mandatory under all operation conditions. Never over-sharpen the blade too much as it will cut down the blade life. Periodically, the diamond blades should be "dressed open" or sharpened by making several passes through a green carbide brick, aluminum oxide (60-100 grit), or abrasive stone such as cinder block or red brick.

Should the saw experience difficulty in cutting, inspect the diamond blade for loss of tension, temper, wobble, pounding, dishing, or glazing of the diamond cutting edge (kerf). Resharpening of the blade may be required periodically when cutting dense and hard material. Segmented rim and continuous rim 303 Pro blades are NOT repairable. Be sure blade flanges are at least 1/6 the blade diameter (i.e. a 24" blade requires a set of flanges at least 4" in diameter). Undersized flanges will result in blade tension loss.

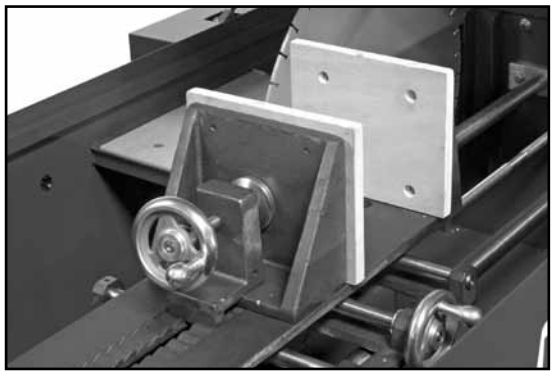
ADJUSTMENT AND OPERATION

Cutting Setup:

CAUTION **DO NOT FORCE** the blade to cut, it will do the job better and safer at a rate for which it was designed.

Rock Vise/Carriage Operation

The carriage and rock vise work together to securely hold the rock specimens during movement of the material in the carriage toward and into the notched rim diamond blade. The rock specimen should not exceed the maximum material size for the saw you are using (as shown in the table on the saw specifications page). It is very important that the rock specimen be tightened by use of the hand screw threaded bolt at the back of the rear vise plate once the specimen has been pushed forward and in firm contact with the front plate. Both front and rear vise plates are constructed of 1/2" plywood to give firm and tight grip to the rock specimen. Should replacement be needed due to wear or breakage, the parts can be ordered from Barranca Diamond Products. Wedges of wood can be used in the voids between the rock specimen and vise plates to enhance the surface contact and pressure hold prior to tightening the vise screw bolt. Be sure to recheck the tightening screw prior to operation.



Carriage and rock vise

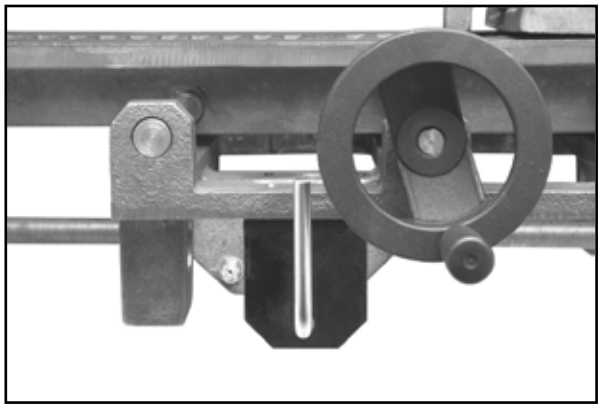
Handle Crank Cross Feed Adjustable Rock Cut Index Control

To use the crank cross feed index wheel, simply clamp and secure the cutting material into the vise by using the clamp screw to tighten the vise and turn the wheel crank until the desired slab thickness is achieved You can measure the slab thickness with a ruler prior to cutting, but remember, depending on blade thickness, the amount of waste material from the rock specimen will vary. Always allow the rock cut to go to completion before opening the hood of the saw. Do not over crank the vise to the far left or right position on the carriage.

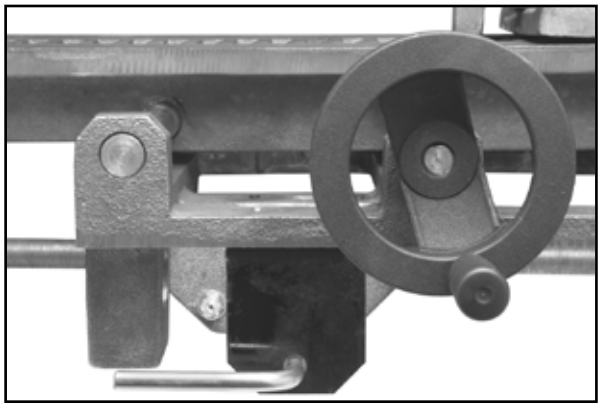
Cross feed index, crank the handle and clutch lever assembly

Automatic Feed Engagement/Disengagement System

Highland Precision slab saws are designed for operation with an adjustable clamping vise and self-feeding carriage mount. The clutch engagement/disengagement lever should be positioned in the straight upward (12 o'clock) position to disengage the clutch and allow the carriage to move freely along the rails. To engage the clutch, simply turn the lever in the downward (3 or 9 o'clock) position to securely engage the bronze shoe and block with the stainless steel thread. Should the carriage not move freely on the rails, clean the rails with a clean rag and place a liberal amount of wheel bearing grease on all surfaces of the steel rails to assist in the free movement of the carriage.



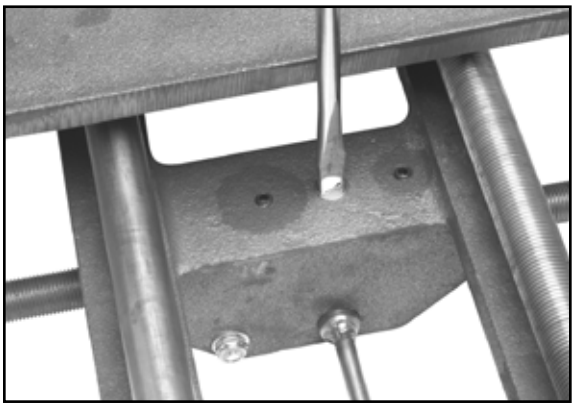
Clutch lever in disengaged position



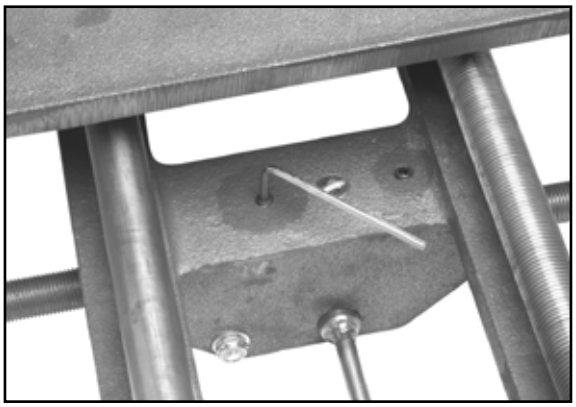
Clutch lever in engaged position

Clutch Adjustment

The clutch system is comprised of a lever to cam assembly that raises and lowers a bronze clutch shoe. Should the clutch not fully engage and move the carriage, loosen the countersink screw below the vise table inside of the carriage and tighten the two allen head screws to depress the bronze pressure block. Adjust set screws in one-half turn increments. Be sure to retighten countersink screw after each adjustment. Re-engage the clutch and restart saw to check if feed is working properly. If not, readjust set screws another 1/2 turn, retighten countersink screw and restart saw to check feed.

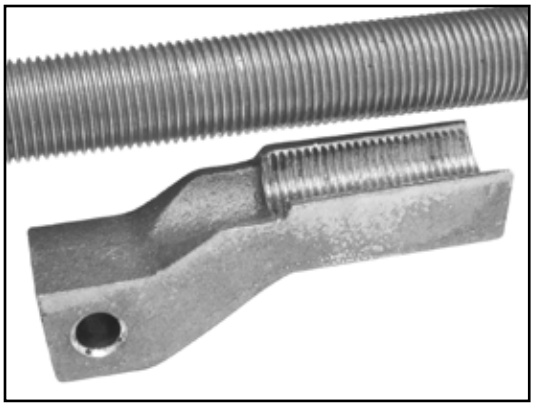


Adjusting countersink screw

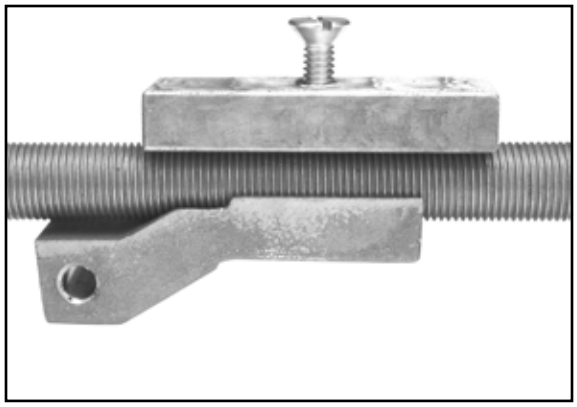


Adjusting allen head screw

This adjustment will help the clutch block shoe to snugly engage the stainless steel feed screw by applying pressure to the brass pressure block below the carriage casting. Should you have trouble with this adjustment, call Barranca Diamond at (800) 630-7682 for factory assistance in clutch adjustment.



Feed screw & clutch block shoe



Brass pressure block, feed screw & clutch block shoe

Periodically, it will be necessary to replace the silicon bronze clutch block shoe once the 5/8"-18 threads are flattened or stripped. You may purchase the clutch block and pressure block direct from the factory. See parts lists on pages 27 & 33 to order correct parts by part number and description of part(s).

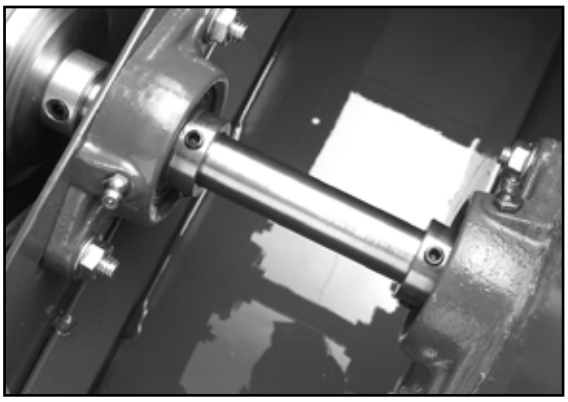
MAINTENANCE FOLLOWING USE

The following maintenance should be performed following each use.

WARNING Place the **ON/OFF** switch in the **OFF** position and unplug cord prior to servicing and when changing accessories, such as blades, belts, and the like.

Blade-Shaft Bearings

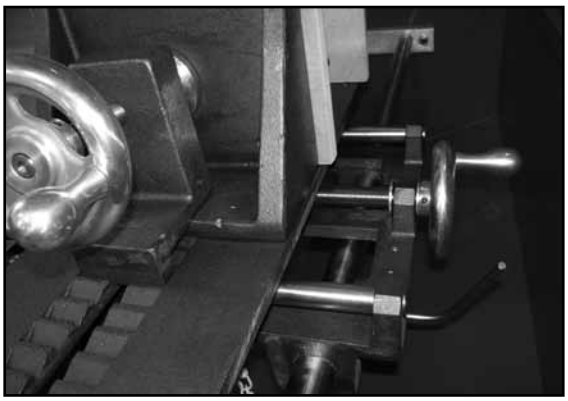
Remove sheet metal cover over blade shaft and grease zerk fittings on base mount bearings. Use premium wheel bearing grease to lubricate all blade-shaft bearings.



Shaft bearings

Cross-Adjustment Rail System

No grease or applied lubrication is required for the stainless steel screw feed and cross-adjustment rail system. The slab saw cutting oil splash will adequately lubricate the vice screw-feed, rails and clutch parts. If the
carriage becomes hard to slide over the rails, clean the rails with a rag and apply a liberal amount of wheel bearing grease to the surface of the steel rails to facilitate travel of the carriage over the rails.



Cross-adjustment rail system

GENERAL MAINTENANCE

Oil Sludge Removal from Reservoir

Use plumber's pipe wrench to remove drain cap. Allow free liquid to drain to a pan. Use a spatula to remove sludge from tank bottom toward drain hole. Use of plumbers tape on the drain pipe threads will adequately seal the cap to thread contact to prevent leaks.

MONTHLY MAINTENANCE

The following should be performed monthly. Items should be lubricated as directed.

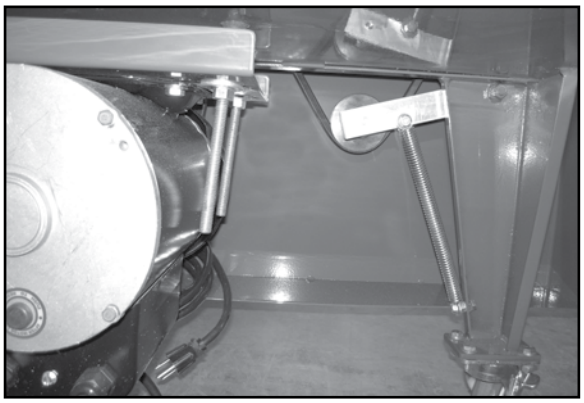
Shaft Bearings

Grease zerk fittings on sealed ball bearing every 20 to 30 hours of use. Rotate shaft periodically while greasing zerk fittings.

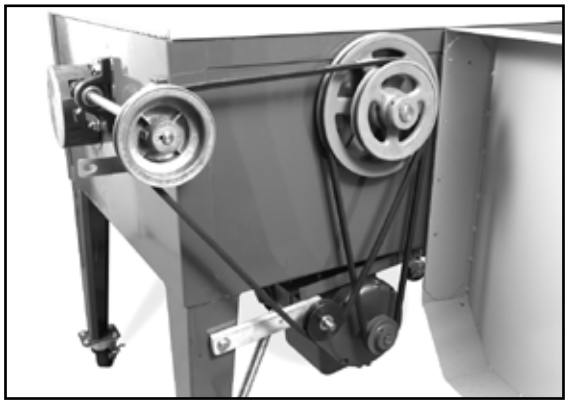
Drive Belts

The belt tension from the motor to blade shaft and worm drive gear are factory preset for immediate operation. However, the belt tension can be adjusted by adjusting the motor mount plate under the oil reservoir box with an open end wrench.

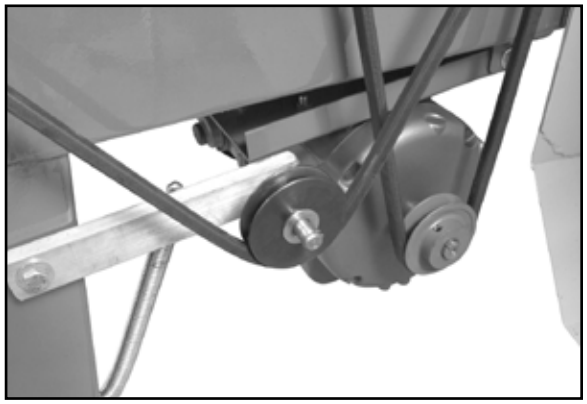
Periodically, the belt tension should be checked by removing the belt guard metal cover and ensure at least 1/2 to 3/4 inch of belt defection is observable. Never over tighten the drive belt as premature motor, bearing and pulley wear may occur. Even though the idler pulley contains sealed ball bearings that do not require lubricant, a small amount of spray oil lubricant or grease can be used periodically to keep the idler shaft and pulley in free spinning condition. Do not allow oil or lubricant to come in contact with the v-belts. Always ensure the spring on the idler pulley arm is attached and not damaged. Some periodic lubrication at the idler shaft/pulley will be necessary. Use a light oil for this bearing to shaft contact surface.



Belt tensioning assembly



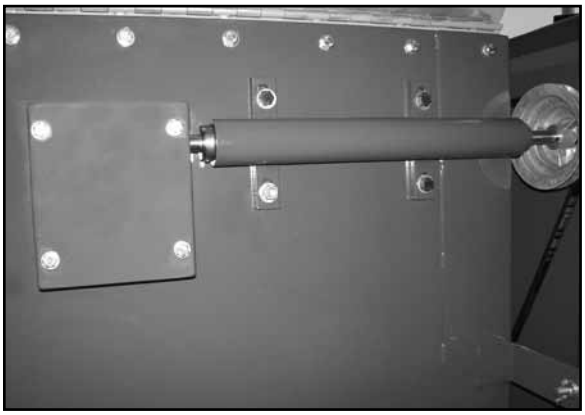
Blade shaft to motor worm gear shaft pulleys and belts



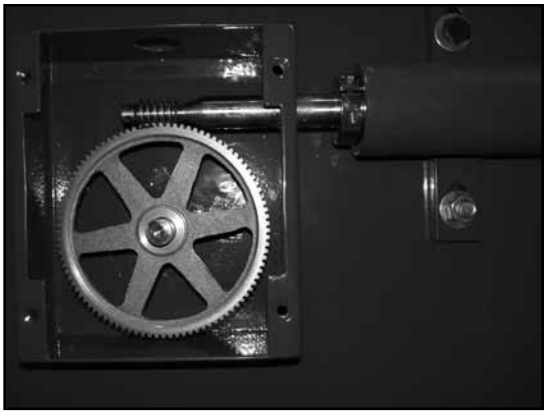
Idler pulley assembly

Worm Shaft and Pinion Gear Lubrication

The worm drive shaft and pinion gear lubrication box on the rear of the saw should be checked for adequate grease lubrication periodically. Remove cover to check lubricant, remove the box by removing the four mounting screws that attach the box to the rear of the saw reservoir. Check the level of the grease lubricant in the box by ensuring that gear box is filled so that at least 1/3 of the volume of the box (up to 1 to 1 1/2 inches from bottom of box) such that the bottom of the bronze gear teeth are immersed in the lubricating grease. A common automotive bearing lithium or moly type grease lubricant should be used. The bronze pinion gear and worm shaft will need to break-in as the unit is first used causing some heat to build up on the gear shaft and lubricant box during this initial break-in period. The grease level in the box should be checked and refilled if necessary after approximately 2 to 3 hours of initial use, be sure the worm and bronze gear teeth mesh together. A premium grade wheel bearing grease for high temperature use is recommended.



Worm drive shaft and pinion gear lubrication box



Worm drive shaft and pinion gear (cover removed)

Diamond Blade Change-Out

Hold blade in one hand and use a wrench to turn shaft nut counterclockwise and remove nut and flange from shaft. After reinstalling blade, replace flange and nut and retighten. Do not over tighten shaft nut.

Lubrication Points

Use premium grade wheel bearing grease when lubricating the saw. Clean the zerk fitting when finished lubricating. Apply grease slowly; stop when grease is seen between joints. Rotate blade and driveshaft slowly by hand to spread grease uniformly into ball bearings.

V-Belt Inspection, Adjustment and Replacement

Look for frayed or split belts. Tighten belts for 1/2" to 3/4" of deflection from center of belt. Do not over tighten.

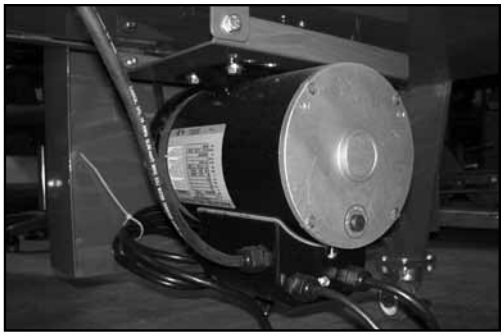
TROUBLESHOOTING

Saw Will Not Start

Check power cord and receptacle.

Motor Overheating

If motor overheats allow to cool for 2 to 3 hours, push reset button with power disconnected, hookup power cord and resume cutting by pulling the power switch to the ON position. All motors have automatic thermal protection and will shut off if overheated. Do not use long (25"+) drop cords.



Motor reset button

Vise carriage can not be moved by hand when clutch is disengaged

Adjust clutch by loosening the slotted locking screw, turn 2 allen set screws 1/2 turn clockwise, re-tighten slotted locking screw. Check to see if carriage is disengaged from screw feed by placing clutch lever in 12 o'clock
position and moving carriage by hand over rails.

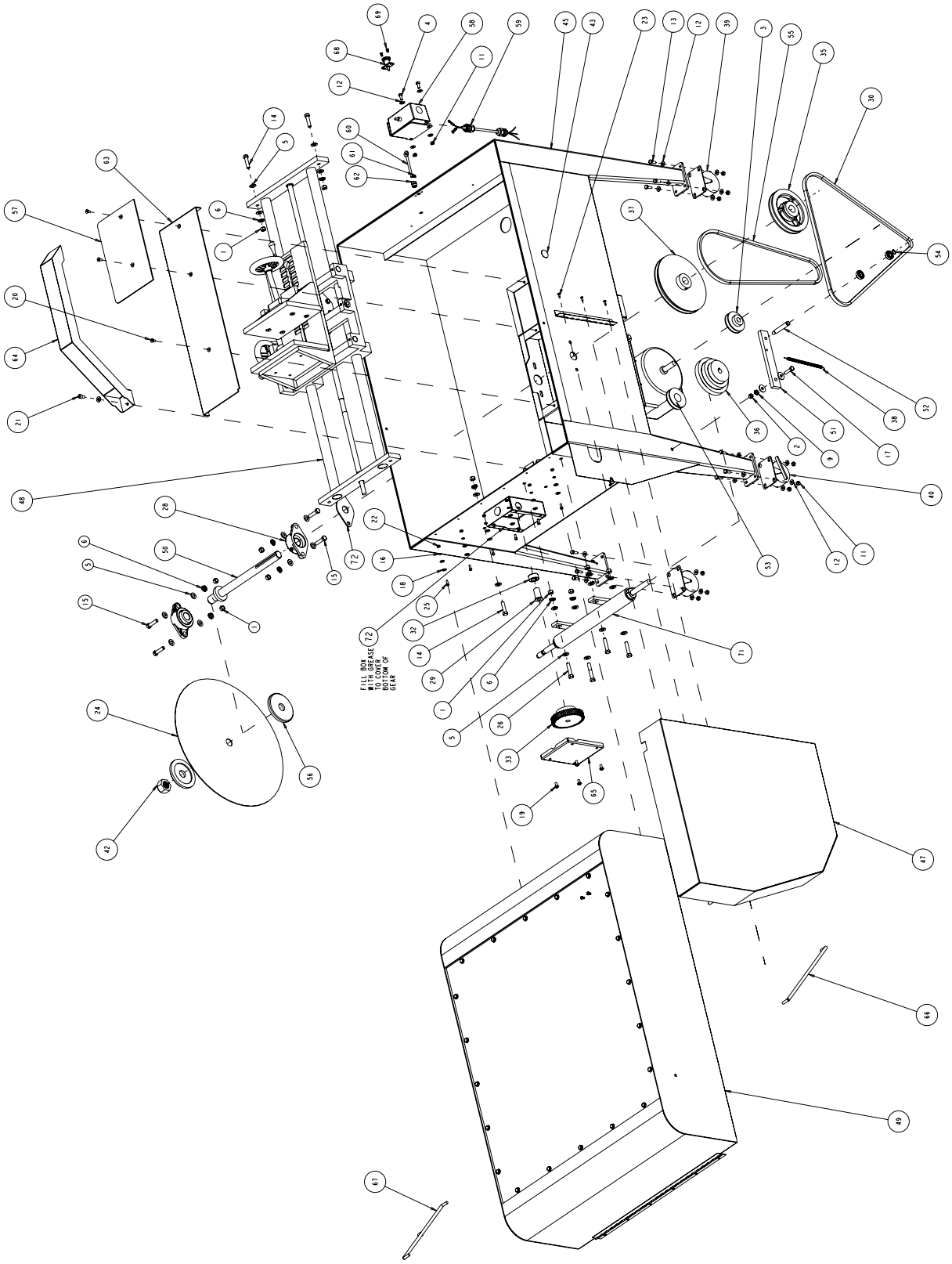
Vise carriage does not move automatically when clutch is engaged

Clutch block thread may be stripped or worn. Remove and replace bronze clutch block.

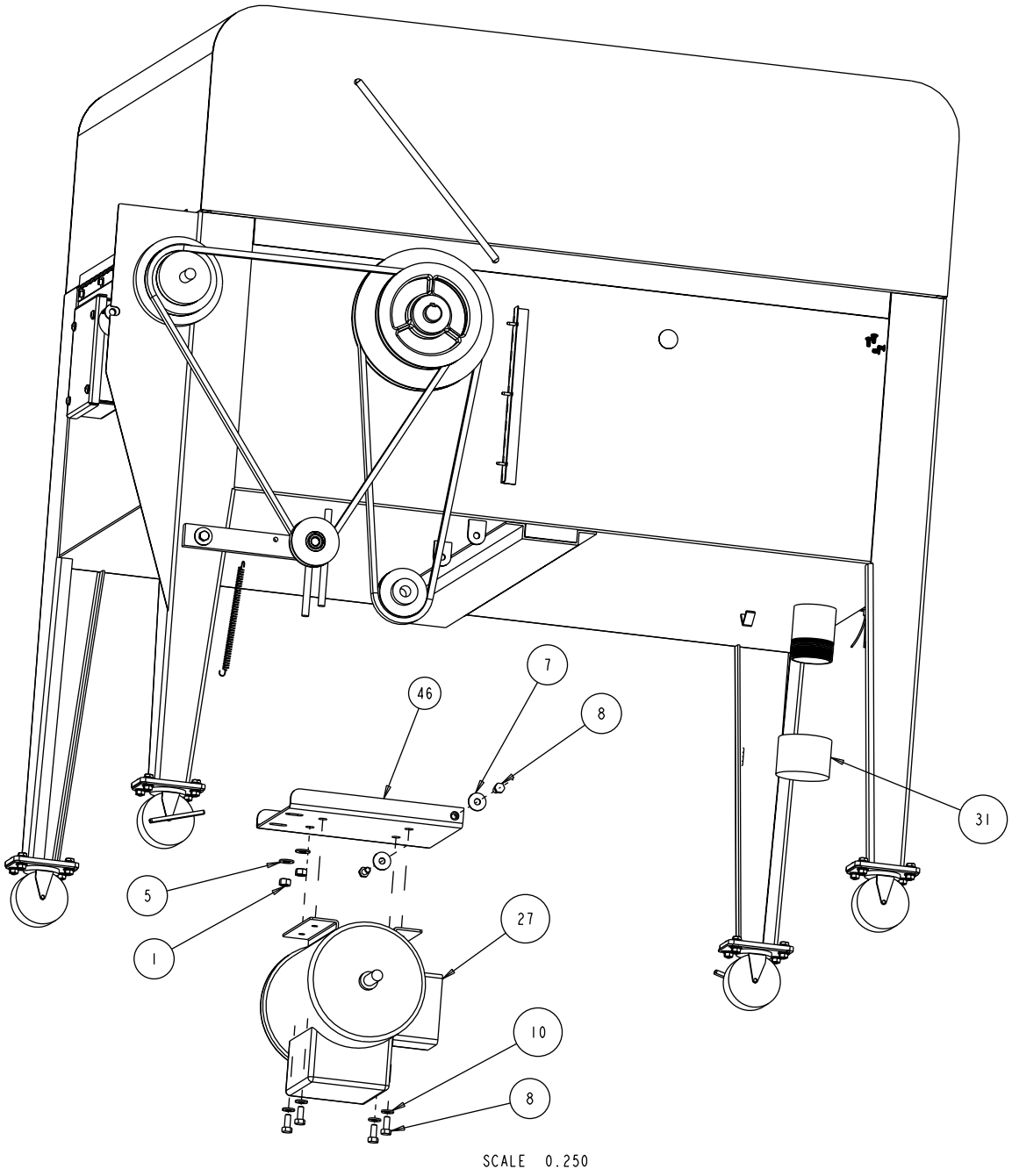
Blade will not cut properly

Check for damage or glazed diamond cutting kerf (segments). Replace damaged blades or resharpen dull segmented blades.

HP18 Highland Precision Slab Saw Part# 8302018



HP18 Highland Precision Slab Saw Part# 8302018



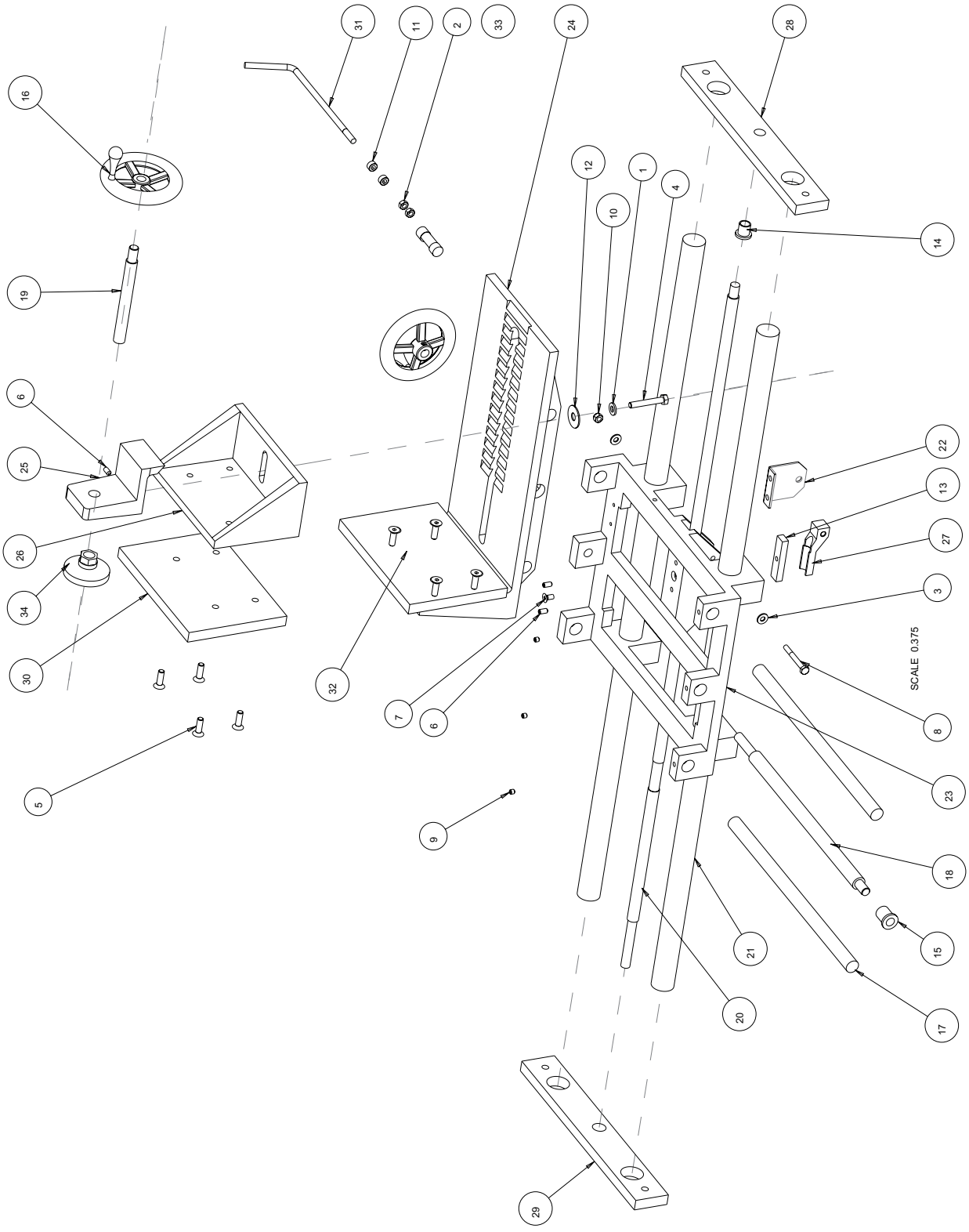
HP18 Highland Precision Slab Saw Part# 8302018

ITEM	DESCRIPTION	PART #	QTY.
1	NUT, HEX, 3/8 - 16	101188	13
2	NUT, HEX, 5/16 - 18	101196	1
3	PULLEY 2 - 3/4 X 5.8	134668	1
4	SCREW, HEX HEAD, 1/4 - 20 X 5.8	150404	2
5	WASHER, 3/8 SAE FLAT	150923	24
6	WASHER, 3/8 SPLIT LOCK	150925	11
7	5/16 FENDER WASHER	151053	4
8	SCREW, 5/16 - 18 X 3/4 HEX HEAD MACHINE	151369	6
9	WASHER, LOCK, SPLIT, 5/16	151747	1
10	WASHER, FLAT, SAE, 5/16	151747	5
11	NUT, HEX, 1/4 - 20	151893	18
12	WASHER, 1/4 SAE FLAT	151915	36
13	SCREW, HEX HD, 1/4 - 20 X 3/4	152370	16
14	SCREW, 3/8 - 16 X 1 - 1/2	153528	7
15	SCREW, 3/8 - 16 X 2 -1/4 HEX HEAD	153529	1
16	WASHER, #10 SPLIT LOCK	153684	6
17	SCREW, 5/16 - 18 X 1 - 1/4 HEX HEAD MACHINE	153950	1
18	WASHER, #10 SAE FLAT	154369	12
19	SCREW, 1/4 - 20 X 1/2 PAN HEAD PHILLIPS MACHINE	155452	4
20	SCREW, FLAT HEAD, 1/4 - 20 X 1/2 PHIL	155812	3
21	SCREW, 5/16 - 18 X 1/2 SOCKET HEAD CAP	156139	1
22	NUT, HEX 10 - 32	156269	6
23	SCREW, PAN HD SELF TAP 8 - 32 X 1/2	156632	3
24	BLADE, 18"	156729	1
25	SCREW, 10 - 32 X 1/2 SOCKET HEAD SET	157525	6
26	SCREW, 3/8 - 16 X 1 - 3/4 HEX HD	158398	3
27	MOTOR, 1.5HP 60HZ 1725 R.P.M IPH	161099	1
28	BEARING, BALL 1/2" ID X 1 - 1/8 OD FLANGE	161363	2
29	BUSHING, BRONZE FLANGED 3/4 X 1/2 X 1 -1/4	161372	1
30	BELT, V A - 60	161412	1
31	PIPE CAP, 2" NPT	161468	1
32	COLLAR, SHAFT 3/4 X 1 - 1/4 X 9/16	161494	1
33	GEAR, SPUR 4" OD X 1/2" BORE 48 TOOTH	161577	1
34	NUT, WING FLANGE 3/8 - 16	161718	1
35	PULLEY 6" 1OD. X 1" BORE	161778	1
36	PULLEY, STEP CONE 3.4.5 X 5/8 BORE	161784	1

HP18 Highland Precision Slab Saw Part# 8302018

ITEM	DESCRIPTION	PART #	QTY.
37	PULLEY, V 8" X 1" BORE	161800	1
38	SPRING, EXTENSION	162337	1
39	WHEEL., CASTER 2 X 1 - 1/4	162344	2
40	WHEEL, CASTER 3 X 1 - 1/4	162794	2
41	MANUAL, OWNER'S	164269	1
42	NUT, HEX 1" - 12 UNF	165038	1
43	CAP, FINISHING	165483	2
44	PALLE, SHIPPING	166218	1
45	TANK WELDMENT	166297	1
46	MOUNT, MOTOR	166299	1
47	GUARD, BELT	166300	1
48	ASSEMBLY, VISE	166372	1
49	ASSEMBLY, HOOD	166373	1
50	SHAFT, ARBOR	166374	1
51	TENSIONER BRACKET	166396	1
52	SHAFT, TENSIONER	166425	1
53	PULLEY, ASSEMBLY	166426	1
54	RING, RETAINING 1/2"	166427	1
55	BELT, V A-48	166495	1
56	FLANGE, BLADE	166496	2
57	WINDOW, GUARD	166497	1
58	SWITCH, ASSEMBLY, ON/OFF	166503	1
59	COR, POWER ASSEMBLY, ON/OFF SWITCH	166505	1
60	LEVER, ON/OFF SWITCH	166511	1
61	CHAIN, ON/OFF SWITCH	166512	1
62	GROMMET, ON/OFF LEVER	166513	1
63	TABLE, ARBOR HOUSING	166640	1
64	WELDMENT, SPLASH HOOD	166691	1
65	COVER, GEAR BOX	166705	1
66	GAS SPRING 50LBS.	166706	1
67	GAS SPRING 50LBS, LOCKING	166707	1
68	LATCH, HOOD	166985	1

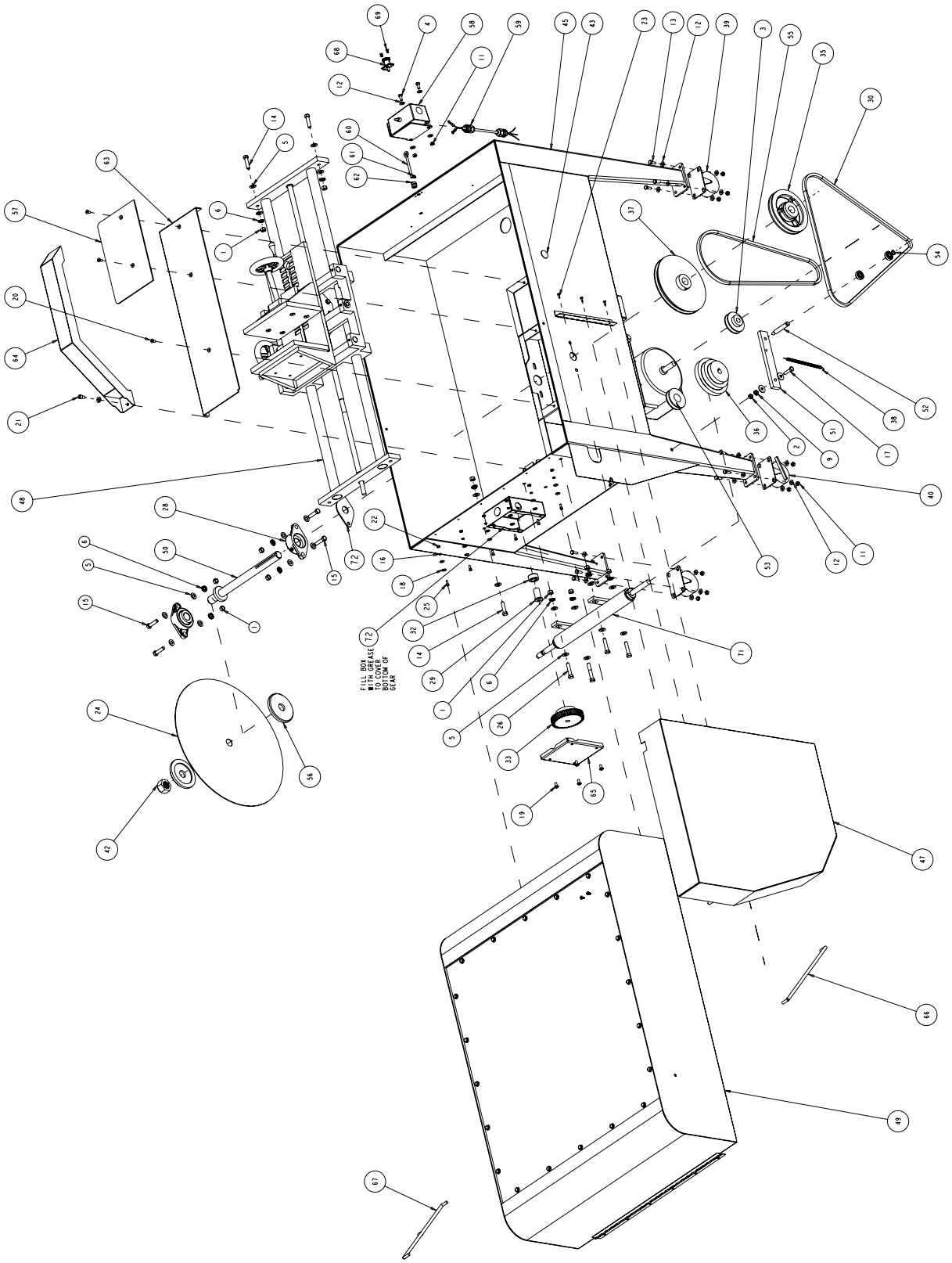
HP18 Assembly, Vise Part # 166372



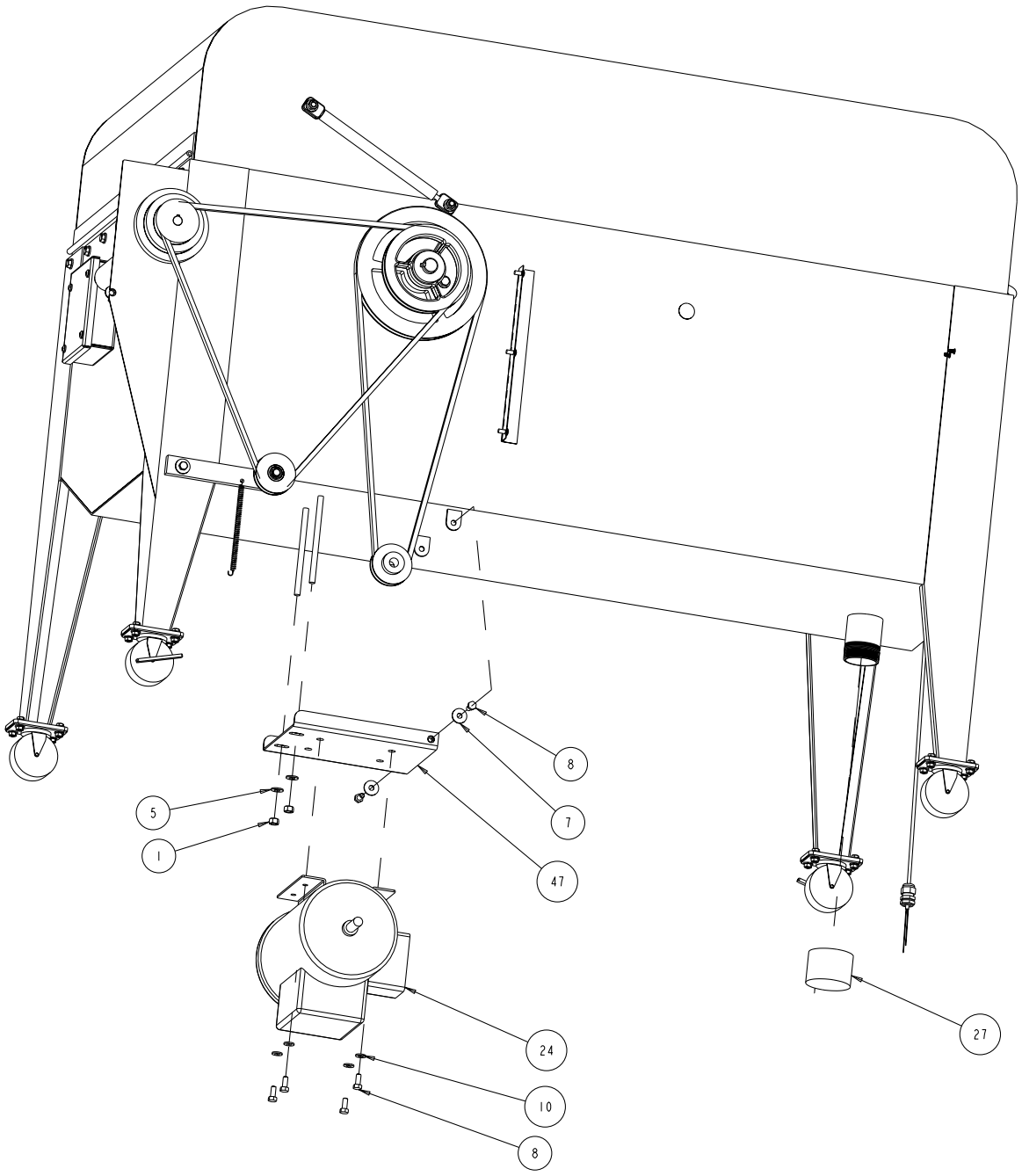
HP18 Assembly, Vise Part # 166372

ITEM	DESCRIPTION	PART #	QTY.
1	WASHER, FLAT, SAE, 5/16	151754	1
2	NUT, HEX, 1/4 - 20	151893	2
3	WASHER, FLAT, SAE, 1/4	151915	2
4	SCREW, 5/16 - 18 X 2 HEX HEAD	155494	1
5	SCREW, 5/16 - 18 X 1.0 FLAT HEAD SOCKET	155552	8
6	SCREW, 1/4 - 20 X 1/2 SOCKET HEAD SET	155804	3
7	SCREW, FLAT HEAD, 1/4 - 20 X 1/2 PHIL	155812	1
8	SCREW, HEX HD, CAP, 1/4 - 20 X 2 - 1/4	157528	3
9	SCREW, SOC HD SET 1/4 - 20 X 1/4	156607	3
10	NUT, HEX, NYLK, 1/4 - 20	159857	1
11	COLLAR, SHAFT 1/4 X 1/2	161066	2
12	WASHER USS 7/16"	162017	1
13	CLUTCH, SHOE UPPER BLOCK	162197	1
14	BUSHING, BRONZE FLANGED 5/8 X 1/2 X 3/4	162304	1
15	BUSHING, BRONZE FLANGED 3/4 X 1/2 X 7/8	162306	1
16	WHEEL, HAND 4 - 1/2"	164915	2
17	ROD, 3/4 DIA. X 14 - 3/8" LG.	166388	2
18	ROD, THREADED SIDE TO SIDE	166389	1
19	ROD, THREADED 5/8 - 11 X 6 -/18" LG.	166390	1
20	ROD, FEED 5/8 - 18 X 44 - 3/4	166391	1
21	ROD, LENGTH SLIDE 1 - 1/4 X 43	166392	2
22	BRACKET, CLUTCH LEVER	166397	1
23	CARRIAGE COMPLETE	166399	1
24	VISE, COMPLETE	166400	1
25	DOG, COMPLETE	166401	1
26	JAW, COMPLETE	166402	1
27	SHOE, CLUTCH COMPLETE	166415	1
28	SUPPORT BAR, RIGHT	166416	1
29	SUPPORT BAR, LEFT	166417	1
30	WOOD, JAW COMPLETE	166431	1
31	LEVER, CLUTCH	166432	1
32	WOOD, VISE COMPLETE	166433	1
33	CAM, CLUTCH	166486	1
34	MOUNT, LEVEL SWIVEL	166704	1

HP24 Highland Precision Slab Saw Part# 8302024



HP24 Highland Precision Slab Saw Part# 8302024



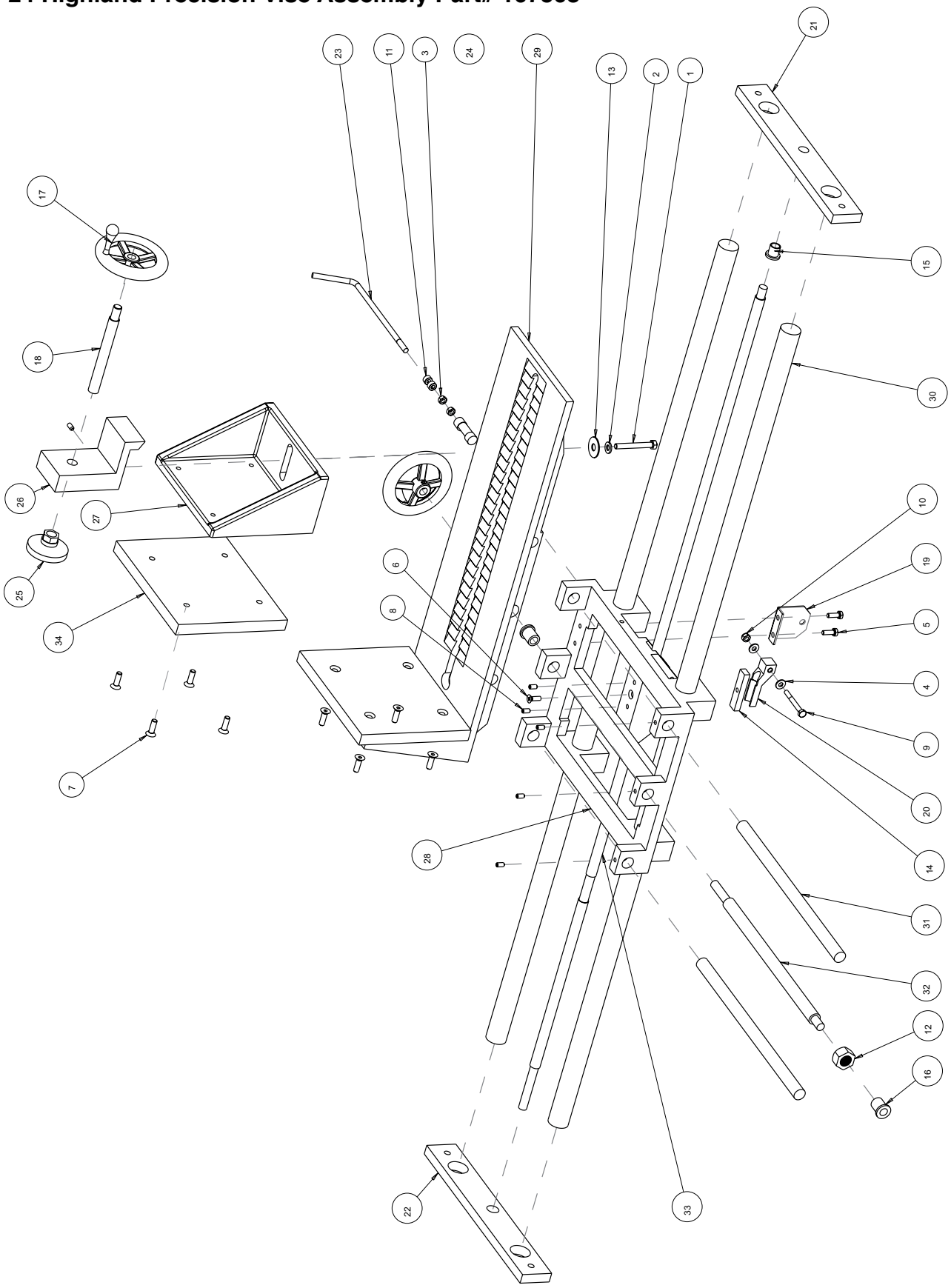
HP24 Highland Precision Slab Saw Part# 8302024

ITEM	DESCRIPTION	PART #	QTY.
1	NUT, HEX, 3/8 - 16	101188	17
2	NUT, HEX, 5/16 - 18	101196	8
3	PULLEY 2 - 3/4 X 5.8	134668	1
4	SCREW, HEX HEAD, 1/4 - 20 X 5.8	150404	2
5	WASHER, 3/8 SAE FLAT	150923	32
6	WASHER, 3/8 SPLIT LOCK	150925	11
7	WASHER, FENDER 5/16 x1.0	151053	4
8	SCREW, 5/16 - 18 X 3/4 HEX HEAD MACHINE	151369	6
9	WASHER, LOCK, SPLIT, 5/16	151747	8
10	WASHER, FLAT, SAE, 5/16	151747	20
11	NUT, HEX, 1/4 - 20	151893	45
12	WASHER, 1/4 SAE FLAT	151915	89
13	SCREW, HEX HD, 1/4 - 20 X 3/4	152370	16
14	SCREW, HEX HD CAP, 1/4 - 20 X 1	152676	26
15	SCREW, 3/8 - 16 X 1 - 1/2 HEX HEAD	153528	4
16	SCREW, 3/8 - 16 X 2 -1/4 HEX HEAD	153529	1
17	SCREW, 5/16 - 18 X 1 - 1/4 HEX HEAD MACHINE	153950	9
18	SCREW, 1/4 - 20 X 3/4 FLAT HEAD PHILLIPS MACHINE	154657	4
19	SCREW, PAN HD, CAP, 1/4 - 20 X 1/2	155452	7
20	BLADE, 24 X 1.0, 303S	156731	1
21	FHS, 1/4 - 20 X 1'	157527	1
22	SCREW, 3/8 - 16 X 1 - 3/4 HEX HD	158398	6
23	COLLAR, SHAFT 1/4 X 1/2	161066	1
24	MOTOR, 1/5HP 60HZ 1725R.P.M 1PH	161099	1
25	BEARING, BALL 1/2" ID X 1 - 1/8 OD FLANGE	161363	2
26	BUSHING, BRONZE FLANGED 3/4 X 1/2 X 1 -1/4	161372	1
27	PIPE CAP, 2" NPT	161468	1
28	COLLAR, SHAFT 3/4 X 1 - 1/4 X 9/16	161494	1
29	GEAR, SPUR 4" OD X 1/2" BORE 48 TOOTH	161577	1
30	NUT, WING FLANGE 3/8 - 16	161718	1
31	PULLEY 6" 1OD. X 1" BORE	161778	1
32	PULLEY, STEP CONE 3,4,5 X 5/8 BORE	161784	1
33	3/16" ACRYLIC	162032	1
34	BELT, A68	162293	1
35	SPRING, EXTENSION	162337	1
36	WHEEL, CASTER 3 X 1 - 1/4	162344	2

HP24 Highland Precision Slab Saw Part# 8302024

ITEM	DESCRIPTION	PART #	QTY.
37	WHEEL, CASTER 3 X 1 - 1/4	162794	2
38	BELT, A57	163098	1
39	MANUAL, OWNER'S	164269	1
40	WELDMENT, HOOD	164949	1
41	WELDMENT, TANK	164950	1
42	WELDMENT, BELT GUARD	164951	1
43	TABLE, ARBOR	164953	1
44	NUT, HEX 1" - 12 UNP	165038	1
45	CAP, FINISHING	165483	1
46	PALLET, SHIPPING	166219	1
47	MOUNT, MOTOR	166299	1
48	TENSIONER BRACKET	166396	1
49	SHAFT, TENSIONER	66425	1
50	PULLEY, ASSEMBLY	166426	1
51	RING, RETAINING 1/2"	166427	1
52	FLANGE, BLADE	166496	2
53	SWITCH, ASSEMBLY, ON/OFF	166503	1
54	PLUG, FINISHING 3/4"	166504	1
55	CORD, POWER ASSEMBLY, ON/OFF SWITCH	166505	1
56	LEVER, ON/OFF SWITCH	166511	1
57	CHAIN, ON/OFF SWITCH	166512	1
58	GROMMET, ON/OFF LEVER	166513	1
59	COVER, GEAR BOX	166705	1
60	LATCH, HOOD	166985	1
61	SCREW, FLAT HD, PHILLIPS 10 - 32 X 3/8"	166896	2
62	GASKET, BEARING	167049	1
63	PULLEY, 9" X 1" BORE	167365	1
64	ASSEMBLY, DRIVE SHAFT	167366	1
65	ASSEMBLY, VISE	167368	1
66	GASKET, GEAR BOX	167373	1
67	GASKET, WINDOW, LONG	167668	2

HP24 Highland Precision Vise Assembly Part# 167368



HP24 Highland Precision Vise Assembly Part# 167368

ITEM	DESCRIPTION	PART #	QTY.
1	BOLT, HEX HD TAP, 5/16 - 18 X 2 - 1/2	151748	1
2	WASHER, FLAT, SAE, 5/16	151754	1
3	NUT, HEX, 1/4 - 20	151893	2
4	WASHER, FLAT, SAE, 1/4	151915	4
5	SCREW, HEX HD, 1/4 -2 0 X 3/4	152370	2
6	SCREW, 1/4 -20 X 3/4 FLAT HEAD PHILLIPS MACHINE	154657	1
7	SCREW, 5/16 - 18 X 1.0 FLAT HEAD SOCKET	155552	8
8	SCREW, 1/4 - 20 X 1/2 SOCKET HEAD SET	155804	6
9	SCREW, HEX HD, CAP, 1/4 - 20 X 2 - 1/4	156607	1
10	NUT, HEX, NYLK, 1/4 - 20	159857	1
11	COLLAR, SHAFT 1/4 - 20	159857	2
12	NUT, HEX 3/4 - 16 BRASS	161706	1
13	WASHER USS 716"	162017	1
14	CLUTCH, SHOE UPPER BLOCK	162197	1
15	BUSHING, BRONZE FLANGED 5/8 X 1/2 X 3/4	162304	1
16	BUSHING, BRONZE FLANGED 3/4 X 1/2 X 7/8	162306	2
17	WHEEL, HAND 4 - 1/2"	164915	2
18	ROD, THREADED 5/8 - 11 X 6 - 1/8" LG.	166390	1
19	BRACKET, CLUTCH LEVER	166397	1
20	SHOE, CLUTCH COMPLETE	166415	1
21	SUPPORT BAR, RIGHT	166416	1
22	SUPPORT BAR, LEFT	166417	1
23	LEVEL, CLUTCH	166432	1
24	CAM, CLUTCH	166985	1
25	MOUNT, LEVEL SWIVEL	166704	1
26	DOG (COMP)	166984	1
27	JAW (COMP)	167139	1
28	CARRIAGE (COMP)	167140	1
29	VISE (COMP)	167141	1
30	ROD, VISE TRAVEL	167369	2
31	ROD, VISE SIDE TO SIDE	167370	2
32	ROD, THREADED SIDE TO SIDE	167371	1
33	ROD, THREADED FEED	167372	1
34	WOOD, BLOCK VISE (COMP)	167555	2

BARRANCA DIAMOND LIMITED WARRANTY

Please complete the warranty registration card and return. Any problems encountered should be directed to Barranca Diamond Customer Service department at (800) 630-7682 M-F 8am - 5pm PST.

NOTE THIS INFORMATION FOR FUTURE USE:

MODEL NUMBER:	
SERIAL NUMBER:	
PURCHASE PLACE:	
PURCHASE DATE:	

Barranca Diamond warrants to the original retail purchaser for a period of 90 days except as noted, from the date of purchase all products covered by this Warranty to be free of defects in materials and workmanship.

This Warranty shall not apply to any parts that have been subjected to misuse or improper service, that had been damaged in transit or handling, or that have been altered or repaired by unauthorized representatives. This Warranty does not cover defects caused by or resulting from misuse, abuse, neglect or damage caused by accident or the failure to provide reasonable maintenance. This Warranty is void if the product or any of its individual components is altered or modified by the purchaser or if the product is used in a manner or with a blade not recommended by the manufacturer.

Any claim arising under this Warranty must be submitted by the original purchaser within the warranty period specified above, and shall include proof of purchase. During said warranty period Barranca Diamond shall, at its option, either replace or repair, at no charge to the original purchaser, any parts or components that are found to be defective by Barranca Diamond. Barranca Diamond shall not be responsible for or obligated to pay for freight or other transportation related costs or expenses in connection with any defective products or components that are either returned to Barranca Diamond's facility or any authorized repair station and/or any replacement products or components that are shipped from Barranca Diamond pursuant to this Warranty.

Parts and labor needed to maintain products and the replacement of components due to normal wear and tear are the purchaser's responsibility and are not covered by this Warranty. All products or components replaced under warranty become the property of the manufacturer. All replacement parts will be considered to be part of the original product and any warranty on such parts will expire coincidentally with the original Warranty. Barranca Diamond will pay for parts and labor in connection with warranty repairs conducted by Barranca Diamond or its authorized repair centers. Replacement part(s) installed by anyone else will be provided without a charge for such replacement part(s), but this Warranty will not apply to labor charges in connection therewith.

IN NO EVENT SHALL ANY LIABILITY UNDER THIS WARRANTY EXCEED THE REPLACEMENT COST OF ANY DEFECTIVE PRODUCT OR COMPONENT THEREOF, AND BARRANCA DIAMOND SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR ANY OTHER DAMAGE OR LOSS NOT EXPRESSLY ASSUMED AS SET FORTH HEREIN.
The foregoing constitutes an expressed warranty on the terms set forth above and is the only warranty or warranties applicable to the products it covers. All other warranties, including, without limitation, the implied warranty of merchantability and/or fitness for a particular purpose or use being denied. This limited warranty is expressly in lieu of all other warranties, whether expressed or implied.

SPECIFICS APPLICABLE TO LIMITED WARRANTY OF DIAMOND BLADES AND CORE BITS

Laser Welded Blade and Bit Warranty
If the laser weld between the segment and the steel core or barrel fails during normal use, the blade or bit will be replaced free of charge. Blades and bits damaged due to careless or improper use are not covered under this warranty.

Brazed Blade, Bit, and Cup Wheel Warranty
If the brazed bond between the segment and the core, barrel, or cup fails within the first .050 of segment wear, the blade, bit, or cup will be replaced free of charge. Blades, bits, and cup wheels damaged due to careless or improper use are not covered under this warranty.

Continuous Rim Blade Warranty
If the bond between the rim and the core fails during normal use, the blade will be replaced free of charge. Blades and bits damaged due to careless or improper use are not covered under this warranty.

Exclusions
Barranca Diamond does not warrant the following components, which carry their own manufacturer's warranty for the indicated periods:

Electric Motors Manufacturer's Warranty
Baldor: 1 year
Ryobi: 1 Year
Soga: 1 Year

Gas Engines Manufacturer's Warranty
Honda: 2 years

Engine Power Information
Engine power ratings are calculated by the individual engine manufacturer and the rating method may vary among engine manufacturers. Barranca Diamond Products makes no claim, representation or Warranty as to the power rating of the engine on this equipment and disclaims any responsibility or liability of any kind whatsoever with respect to the accuracy or the engine power rating. Users are advised to consult the engine manufacturer's owner's manual and website for specific information regarding the engine power rating.

REPLACEMENT PARTS
Replacement parts for this tool may be ordered form your Barranca Diamond distributor or directly from Barranca Diamond. Please have the following information ready before calling:
- Model and serial number of the machine
- Date of purchase
- Description of parts being ordered (see attached parts list)

RETURN MATERIALS PROCEDURE
To expedite the service relative to the return of a product purchased through Barranca Diamond, please have the following information available:
- Model and serial number of the machine
- Date of purchase
- Distributor's name

Then please call Barranca Diamond at (310) 523-5867 or toll free at 800-630-7682 to obtain a Return Goods Authorization number (RGA) authorizing the return.

Please Note:
- Ensure your item(s) are prepaid to the destination
- Return items must have been purchased within the previous twelve (12) months
- Follow the packaging instructions in the following section
- Be sure to include the RGA number, return address and your phone number on or within the return shipping box.

PACKAGING INSTRUCTIONS
Ship the saw using its plywood shipping crate. Use wood screws to fasten the baseboard to the 1/2" plywood crate bottom so as to secure it inside the shipping crate.

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Barranca Diamond Products, Inc.
1315 Storm Parkway
Torrance, CA 90501

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